

Will The Unit Operations Center Become A Burden For Marine Corps Communicators?

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INTRODUCTION

In current operations, the Marine Corps does not just rely on fires and their effects to win battles. Information operations, public relations, and digital communications have become almost as important as pulling the trigger and sending rounds down range. Today, those who can gather, filter, and distribute timely and relevant information have a greater chance of winning the battle¹. Recognizing this, units throughout the Marine Corps have packed their homegrown COCs with digital equipment to increase their information collection, filtration, and dissemination capabilities². This has occurred with little or no support from Marine Corps or Department of Defense (DoD) logistics programs. In an effort to fill this support gap, Marine Corps Systems Command (MARCORSYCOCM), with guidance from Marine Corp Combat Development Command (MCCDC) and the operating forces, procured the Unit Operations Center (UOC), a standardized COC. The UOC is full of some of the latest Marine Corps command and control (C2) applications and equipment designed to help Marine Corps units speed up their observe, orient, direct, and act³ (OODA) loop. However, although the UOC was procured to provide its own logistics support, current UOC

¹ Laura Little. "The Digital Combat Operations Center," *Marine Corps Gazette*, August 2002, 37-53.

² Asad A. Kahn. "Digital Combat Operations Center," *Marine Corps Gazette*, March 2003, 39-41. Proquest Military Collection (20 January 2005).

³ OODA is a model of decision process that can be used in the tactical environment to try to stay ahead of enemy actions.

support plans will place most of the equipment, training, and manpower burden on the communications community.

BACKGROUND

In the past, Marine units, particularly infantry regiments and below, have gathered commercial equipment necessary for their COCs, loaded it in the back of a few high-back highly mobile multi-wheeled vehicles (HMMWV), purchased a small gasoline-powered generator, placed operators assigned to them from the staff sections, flipped a few switches, and hoped for the best when they went out to the field. Looking for a better solution,

during the 14-16 January 99 Division Commanders' Conference the Commanding Generals for the 1st, 2nd, 3rd, and 4th Marine Divisions stated the following: "The COC needs to provide space, power, and connectors to enable 'plug and play' operations for our series of integrated C2 systems. Each of our echelons of command needs to be able to transport the shelters, C2 systems and support equipment, and power generation equipment of the COC."⁴

And so UOC was initiated to resolve the lack of logistics support for Marine Corps COCs.

To make the request official a mission need statement and operational requirements document⁵ were drafted and approved in 1996 for the UOC⁶. UOC was to "provide mobile facilities that

⁴ Marine Corps Combat Development Command, *Operational Requirements Document for the Combat Operations Center (COC); Change 4(No. CCC 30.1)*. Quantico, VA: MCCDC, 2001.

⁵ UOC Operational Requirements Document, 2001.

⁶ UOC Operational Requirements Document, 2001.

[would] host or interface with current and planned [Tactical Data Systems] TDS" ⁷. It was to "interface with planned and existing organizational Table of Equipment (T/E) communication systems" and "existing communication assets [would] not be immediately replaced [but rather] phased out and new ones phased in with the development and procurement of new radios and systems as separate programs"⁸.

The contract for UOC was awarded on April 2002 by MARCORSYSCOM to General Dynamics Decision Systems and after going through some preliminary testing, the UOC was sent out to Iraq to support I Marine Expeditionary Force (MEF) during Operation Iraqi Freedom I and II. However, after design, initial production, and some combat operations some equipment and training issues have been raised within the communications community about UOC.

EQUIPMENT

Transmission

Since the UOC program does not have any organic transmission systems, it will not add radios to a unit's T/E⁹. Units will have to provide UOC a transmission path via the radios they have been using with their improvised COCs. One of the major issues that has arisen about the UOC is that the

⁷ UOC Operational Requirements Document, 2001.

⁸ UOC Operational Requirements Document, 2001.

⁹ UOC Operational Requirements Document, 2001.

transmissions systems that the infantry battalions have cannot support the bandwidth required by the UOC. While the UOC boasts about the capacity of its routers and switches, it is highly reliant on the Enhanced Position Location Reporting System (EPLRS)¹⁰ to communicate with other units. It was evident during Operation Iraqi Freedom (OIF) I and II that EPLRS was not very reliable¹¹. Since it is a line of sight radio, it was at the mercy of the surrounding terrain and its low bandwidth capability did not provide the Marines with what they needed¹². Eventually EPLRS will be able to provide more bandwidth, but still not enough to effectively support UOC's C2 applications and equipment. More capable transmission systems will appear at a later date that will support UOCs current bandwidth requirements, but when that happens, much of the UOC equipment is sure to be obsolete¹³ or replaced with equipment with even higher bandwidth requirements. Consequently, since UOC does not provide any of its own transmission systems, it will burden the communications Marines by forcing them to take from already scarce resources to support the UOC.

¹⁰ EPLRS provides robust, on-the-move, high-speed, automated data exchange using a contention-free networking architecture. This guarantees speed of service to time-critical users.

¹¹ Neil Baumgardner. "Myriad of Communications Equipment Problematic For Marine Forces in OIF," *Defense Daily* 218, no. 144, (2003): 1.

¹² Equipment Problematic For Marine Forces in OIF, (2003).

¹³ "Information Technology Equipment Life Cycle." *Public Act 161 of 2003 Sec. 579*. 2004. http://www.michigan.gov/documents/Life_Cycle_Boilerplate_Report_86875_7.pdf.

Tactical Switching

Tactical switching in the UOC is also showing signs of trouble. In an effort to integrate all of its tactical data systems such as Advanced Field Artillery Tactical Data System (AFATDS), Intelligence Operations Workstation (IOW), Voice over Internet Protocol (VoIP), and other Marine Corps applications, the UOC has found a need to integrate digital switches such as routers, Internet Protocol (IP) switches, and digital voice switches. This equipment has enhanced UOC's capabilities but has left it with some vulnerabilities.

While the switches and routers enhance UOC's capabilities, it is likely that this equipment will not operate as it should 100% of the time. And, since UOC is a mobile system, it is likely that the shaking and rattling of field operations will cause even more problems for its switches and routers. In conversations with the UOC program office, they argue that the equipment in the UOC is mostly "plug-and-play" and that the operators will only have to flip the ON/OFF switch, wait for the blinking green lights, and get ready to talk. But, it is well known in the communications community that even if everything is done right, it is very possible not to see the blinking green lights on the very first try, especially if the equipment has been rattled. This will cause problems for UOC since it is reliant on its switches and routers. Troubleshooting will have

to be done by trained personnel who, if required, will either fix the problem or replace the broken part. This will require more than a basic knowledge of the system. When this happens, communications Marines who are already tasked with establishing communications with higher, subordinate, and lateral units will be diverted to set up the UOC routers and switches.

Communications Marines will surely lose time helping UOC operators set up the system, but the greater danger is that some of the switching equipment designated for higher, lateral, and subordinate links may be taken away to support UOC. It will be up to the communications officer and chief to emphasize to the operations officer and commander the importance of outside links compared to the importance of internal UOC links.

Tactical Data

In addition to its switches, UOC has found the need to add servers to support the TDSes in the operational facility (OPFAC). Like the tactical switches, servers will require trained personnel to ensure UOC TDSes work properly. As it stands now, non-communications operators will be installing, operating, and maintaining UOC data systems. This may be possible if the servers and data systems work properly 100% of the time but if the data systems do not work as they should, it is likely that the communications section will have to provide personnel and equipment to ensure UOC keeps working properly.

PERSONNEL

Training

In the preliminary training, planning, process methodology (TRPPM)¹⁴ report completed in January 2005, the UOC program office confirmed what the communications community had been speculating since UOC came off the assembly line. Through its analysis, the UOC program office found that an increase in training for communications officers, communications chiefs, radio operators, digital switch operators, and data network specialists is necessary. The additional training is to train the communications community on UOC-specific equipment. Radio operators will have to learn how to talk on the radio from the UOC laptops, digital switch operators would need to program the laptops to act as phones, data network specialists would need to program the data terminals, the UOC routers, data switches, and UOC servers¹⁵. With the additional training, communications Marines would be ready to "assist" the UOC operators in installing, operating, and maintaining UOC equipment. Conversely, the most significant training changes for non-communications Marines were for the generator operators and the

¹⁴ A defined process for training and education issues during program acquisition. It is developed by MARCORSYSCOM and done in close coordination with Training and Education Command (TECOM).

¹⁵ Jim Jones and Tony Knight. *UOC Manpower Training Plan Brief*. Stafford, VA: NGIT, 2005

operations chief. For UOC operators, no significant training changes were recommended.

The training itself does not pose any real burden for communications Marines, but rather the precedent that will be set. Looking back at the UOC ORD, this suite of equipment should only be seen as a terminal device from a communicator's prospective. It should be treated like the Command and Control Personal Computer (C2PC) application where the communications Marine ensures the communications path exists while the operations clerk or officer are responsible for the operation of the application itself. As it stands now, the UOC program office is looking to task the communications Marines with the responsibility of operating the UOC without relieving them of their primary mission or providing additional personnel.

Manpower

Like many other acquisition programs, the UOC's TRPPM report does not recommend any personnel increases to a unit's T/O for UOC operations. This is due to the fact that the Marine Corp has a finite number of Marines and that if more Marines are needed for a particular military occupational specialty (MOS), they will be taken from the allotment of another MOS. It is a zero-sum game.

A major assumption done by the UOC program office in their recommendation was that, since the UOC advertises that it can

function as a communications system as well as a COC¹⁶, primary communications equipment can be reduced at the unit and the communications Marines can be diverted to the UOC. The problem with this is that the communications program office at MARCORSYSCOM has not yet agreed that UOC can perform a communications function. Up until this issue is resolved, communications Marines will have to be responsible for establishing communications paths and setting up the UOC equipment without any additional manpower. The UOC program office agrees that this increase in responsibilities would increase the communications Marine man-hours, but it is a risk that they are willing to take¹⁷. This approach is sure to cause conflicts during operations because the operations section and the communications section will both be trying to use limited resources to accomplish each of their respective missions.

COUNTERARGUMENT

Commanders have acknowledged that UOC has met the requirement of providing standard COC equipment with corresponding logistics support. The UOC has standardized Marine Corps COCs and has provided the required logistics support. However, rather than creating its own support, OUC

¹⁶ Jim Jones and Tony Knight, interview with author, February 7, 2005.

¹⁷ Jim Jones and Tony Knight, interview with author, February 7, 2005.

draws from existing communications equipment and personnel resources.

Much of the UOC training curriculum is dependent on unit training and extensive use of electronic job aids and courses. None of these informal courses will be tracked to formally designate UOC-trained operators. Some argue that the young Marines joining the Marine Corps are very computer savvy and should be able to operate UOC without the assistance from the communications community¹⁸. But even if these job aids enhance an operator's ability to operate the UOC, commanders cannot rely on "maybe" and "probably" to conduct a successful operation.

CONCLUSION

Like any good Marine, communications Marines will do what is necessary to accomplish the mission. Communications in the Marine Corps is a support function and, therefore, will make sure that the commander has what he or she needs. When required, communications Marines will operate the UOC while still accomplishing their primary mission. But, if the UOC program office is truly looking to draw from communications Marines to run the UOC, it must ensure that these Marines have the appropriate resources and training. The UOC has actually done what it has set out to do: It has provided Marine Corps units with standard COCs that have Marine Corps and DoD

¹⁸ Conversation with various communication officers (0602) and Communications School instructors.

logistics support. However, it must do more than create an illusion that the UOC has its own support and place the equipment, training, and manpower burden on communications Marines.

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